REFERENCES

- *Abdullah G. et al.* (2012); synthesis & photooxidation of Furo[3,2-*c*]coumarin Derivatives as Antibacterial and DNA Intercalating Agent. Chinese Journal of Chemistry volume 3o pages 316–320, February,
- *Abdullah Sulaiman Al-Ayed(2011):* Synthesis of New Substituted Chromen[4,3-c]pyrazol-4-ones and Their Antioxidant Activities *Molecules 16*(12), 10292-10302
- *Ahmed A. Al-Amiery, Ahmed A. Al-Amiery, Ahmed Y. Musa, Abdul Amir H. Kadhum and Abu Bakar Mohamad (2011):*The Use of Umbelliferone in the Synthesis of New Heterocyclic Compounds 11 July 2011; in revised form: 22 July 2011 / Accepted: 1 August 2011 / Published: 10 August 2011
- *Anamik Shah et al*.(2008): Synthesis, anti-tubercular activity and 3D-QSAR study of coumarin-4-acetic acid benzylidene hydrazides, European Journal of Medicinal Chemistry xx, 1-9
- *Ashok Kumar et al*;(2010): Synthesis of New Coumarin Derivatives asAntibacterial Agents. International Journal of ChemTech Research CODEN(USA): IJCRGG ISSN : 0974-4290 Vol.2, No.3, pp 1745-1752
- *Biljana R.Decik, Vukicevic and Radosav M. Palic* (2010):Synthesis and Antimicrobial Activity of New 4-Heteroarylamino Coumarin Derivatives Containing Nitrogen and Sulfur as Heteroatoms *Molecules 15*(4), 2246-2256; doi:10.3390/molecules15042246 Butterworths, London, 1960, 1, 1-33.
- *Chatwal, G.R.; Anand, S.K.*; Instrumental Methods of Chemical Analysis, Himalaya Publications, 2.599.
- *Creaven, B.S.*; *et al*.(2006): Synthesis, characterization and antimicrobial activity of a series of substituted coumarin-3-carboxylatosilver complexes, Inorganica Chimica Acta 359, 3976–3984.
- *Cruickshank, R.; Hayward, N. J.* Tubing and bottling of liquid media. Edinburgh. Medical Microbiology, 1972, 727.
- *Eleonora Rizzi, Sabrina Dallavalle, and Lucio Merlini (2005):* Short Synthesis of Cytotoxic, European Journal of Medicinal Chemistry 40 ,1168–1180.

- *Filimonov D.A., Poroikov V.V. PASS: (1996):* Computerized prediction of biological activity spectra for chemical substances. Design of Bioactive Compounds, Oxford: BIOS Scientific Publishers; 47-56.
- *Francesco, R.; Giovanni, G.; Francesco, F.; Cristina, B. (2001):*A convenient synthesis of furo[3,2-c]coumarin by a tandem alkylation/intramolecular aldolisation reaction, Tetrahedron Letters 42 , 3503–3505..
- *Godkar P.B*; Textbook of Medical laboratory Technology, 2nd edition, bhalani, publishing house ,838-839.
- *Guru, N.; Srivastava, S. D.;*(2001):Synthesis of some new 1-[5'-{(2-benzothiazolylthio) methyl}- 1',3'4'-thiadiazol-2'-yl]-4-substituted-3- chloro-2-azetidinones: Antimicrobial agent. J. Sci. Ind. Res., 60(7), 601-5.
- *Hankare, P. P.; Jagtap, A. H., Battase, P. S.; Naravani, S.R. (2002):*Synthesis, X ray diffraction and microbiological study of 8-[4-(nitrophenyl)-2-azothiazolyl]-7-hyroxy-4-methyl coumarin. Indian J. Chem. Soc.,79 440-441.
- *Harsh Mohan*; Textbook of pathology, 4th edition, Jaypee Brother's Medical Publisher, 98-99.
- *Hassan, V.; Abbas S.*;(2005): An efficient procedure for the synthesis of coumarin derivatives using TiCl4 as catalyst under solvent-free conditions, Tetrahedron Letters 46 , 3501–3503.
- *Ilia, M.; et al.,(*2006): Synthesis, structure, toxicological and pharmacological investigations of 4-hydroxycoumarin derivatives, European Journal of Medicinal Chemistry 41, 882–890
- *Ilia, M.; et al.,(2006):* Synthesis, structure, toxicological and pharmacological investigations of 4-hydroxycoumarin derivatives, European Journal of Medicinal Chemistry 41 ,882–890
- *Imthyaz, A.; et al (2005):*One pot synthesis of oxygenated tri-heterocycles as anti-microbial agents, European Journal of Medicinal Chemistry 40 ,1168–1172.
- *Irena K.;* (2008):New cerium (III) complexes of coumarin e Synthesis, characterization and cytotoxicity evaluation, European Journal of Medicinal Chemistry 43, 178-188.
- *Irena K.;* (2008):New cerium(III) complexes of coumarin e Synthesis, characterization and cytotoxicity evaluation, European Journal of Medicinal Chemistry 43 , 178-188.

- *Issa, Y.; Mehadi, A.; Leiala, H. (2001):* Vinyltriphenylphosponium salt mediated synthesis of functionalized coumarin, Tetrahedron Letters 57 , 7537-7540.
- *B. Vyasa, K. S. Nimavata, G. R. Janib, M. V. (2006):*Synthesis, characterization and antimicrobial activity of a series of substituted coumarin-3-carboxylatosilver(I) complexes Pharm. Chem. J
- *Kalkhambkar, R.G.; Kulkarni, G.M.; Kamanavalli, C.M.; Premkumar, N.; Asdaq, S.M.B. (2007):*Synthesis and biological activities of some new fluorinated coumarin and 1-aza coumarin, European Journal of Medicinal Chemistry 20 ,1-11.
- *Khan I. A., Kulkarni M. V., Chung-Ming Sun (2005):* One pot synthesis of tri-hetrocycles as anti-microbial agents. European Journal of Medicinal Chemistry 40, 1168-1172
- *Kiral, Y.; Anklekar; Chandrashekhar, D.; Lakkannavar; Kulkarni, M.; Geeta; Kulkarni,; Manohar (2003):*Synthesis, spectral studies and biological evaluation of some new 4-substituted coumarins. Indian J. Chem., 42B, 1548-1550.
- *Kulkarni V. S.; Pathak S. P (2006):*A laboratory hand-book of Organic qualitative analysis and separations; 15-18
- *Kulkarni, G.M.*; (2007):Synthesis and biological activities of some new fluorinated coumarin and 1-aza coumarin, European Journal of Medicinal Chemistry, 20, 1-11
- *Lacy A, O'Kennedy R. (*2004):Studies on coumarin and coumarin-related compounds to determine their therapeutic role in the treatment of cancer. Curr Pharm Design; 10(30): 3797-3811
- *M. E. Abd El-Fattah1, M. Y. El-Kady , S. M. El-Rayes1, M. Khalil (2001):*Synthesis and Biological Evaluation of Some Coumarin Derivatives Pharm. Chem. J. 35, 364-365.
- *Maghar S.M.; Subhendu, N.G.; Mukherjee, S.; Jain, A.K (2006):* Microwave initiated reactions: Pechmann coumarin synthesis, Biginelli reaction, and acylation, Tetrahedron Letters 47 , 2423–2425.
- *Mahesh, K.; Potdar, Swapnil, S.; Manikrao, M. S. (2001):*Coumarin syntheses via Pechmann condensation in Lewis acidic chloroaluminate ionic liquid, Tetrahedron Letters 42 , 9285–9287
- *Manjunath Ghate ,Manohar D , Kulkarni V , Shobha R , Kattimani S.Y.(2003):*Synthesis of vanillin ethers from 4-(bromomethyl) coumarin as anti-inflammatory agents.European Journal of Medicinal Chemistry, 38 , 297/302

- *Manjunath Ghate ,Manohar D , Kulkarni V , Shobha R , Kattimani S.Y (2003):*Synthesis of vanillin ethers from 4-(bromomethyl) coumarin as anti-inflammatory agents.European Journal of Medicinal Chemistry 38 ,297/302
- *Mohammad S. Mustafa, et al (2011):*Synthesis, and Antitumor Activity of Some *N1*-(Coumarin-7-yl) Amidrazones and Related Congeners *Molecules 16*(5), 4305-4317; doi:10.3390/molecules16054305
- *Mulwad, V.V.; Pawar, R.B. (2003):* Synthesis of some antibacterial compounds from 4-hydroxy coumarin, Indian J. Chem., 42B 2091-2096.
- *Nawrot-Modranka, J.; Nawrot, E.; Graczyk, J.* (2006):In vivo antitumar, in vitro antibacterial activity and alkylating properties of phasphorohydrazine derivatives of coumarin and chromone. Eur. J. Med. Chem., 41(11), 1301-1309.
- *Purohit, N. V.*(2001): Synthesis and studies on biological activities of some substituted 2-benzopyran-1H-one, 1H-2-oxo-benzopyran-3-carboxylic acids and 2-benzofuran-1(H)-one, Indian J. Chem., 40B, 222-227.
- *Rajanarendar, E.; Karunakar, D.; Srinivas, M. (2004):*Synthesis and bioactivity of isoxazolyl thiazoles, isoxazolyl thiazolyl chromen-2-ones, isoxazolyl thiazinanes and isoxazolyl thiazolidinones. Indina J. Chem., 43B, 643-648.
- *Sharma, P.; Pritmani, S.*; (1999):Synthesis, characterization and antimicrobial stydies of some novel 3-aryl-azo-7-hydroxy-4-methyl coumarins. Indian J. Chem., 38 B 1139-1142.
- *Smith Q. E.* Pharmacological screening tests progressive, Medicinal Chemistry
- *Stepanchikova V.V., Lagunin A.A.* (2003): Prediction of Biological Activity Spectra for Substances: Evaluation on the Diverse Sets of Drug-Like Structures Current Medicinal Chemistry; 10; 225-233.
- *Tandel, R. C.; Mammen, D.(2008):* Synthesis and study of some compounds containing oxazolone ring, showing biological activity. Indian J. Chem., 47B(6), 932-937.
- *Tripathi, K.D.*; Essentials of Medical Pharmacology, 5th editon, Jaypee Brother's Medical Publisher, 562-566.
- *Tripathy, K.P.; Mukerjee, K.A.* A Facile synthesis of 3-acylaminocoumarins. Indian J.Chem., 1987, 26 (B) 61-62.C.N. Desai, D.Dave, D.M. Shah, D.G. Vyas; Indian J. Chem.398 (200) 277-82.

- *Ukhov S.V.*; et al. (2001):Synthesis and Antimicrobial Activity of 2-Iminocoumarin-3-Carboxylic Acid Amides, Pharmaceutical Chemistry Journal,35, No. 7,
- *Vogel'*s Textbook of Practical Organic Chemistry, 5th edition, International student edition, 1192.
- *Watson, B.T; Christiansen, G.E. (1998):*Solid Phase Synthesis of Substituted Coumarin-3-Carboxylic Acids via the Knoevenagel Condensation, Tetrahedron Letters 39, 6087-6090
- *Ya. L. Garazd; E. M. Kornienko, L. N. Maloshtan, M. M. Garazd (2005):*Synthesis and anticoagulant activity of 3,4-cycloannelated coumarin D- glycopyranosides , Chemistry of Natural Compounds, 41 , 1140.

Submitted by

MRS.MEHRAJKHAN AMJADKHAN PATHAN

Registration No. 20114318

Supervised by

Dr. SAYED AYAZ ALI